

SLCC Journal

SAN LEANDRO COMPUTER CLUB

July 1987

JOIN THE MARCH



Based on *The Spirit of '76*
by Archibald H. Hillard

TO ATARI INDEPENDENCE

ATARI®

9

Reasons Why We're So Friendly...



1. P:R:Connection

Now you're no longer limited to 'Atari Only' printers and MODEMS... the P:R:Connection is a flexible alternative to the Atari 850 interface. Suddenly hundreds of printers and MODEMS become compatible with your Atari, you can even share the same printer and MODEM with your ST or IBM PC.

The P:R:Connection plugs directly into the serial (disk drive) port of any 8 bit Atari and provides the user with a standard 'centronics' printer port and two RS-232 type serial ports. It also draws its energy from your computer which means one less cord fighting for an outlet while its compact size leaves your work space virtually clutter-free. The P:R:Connection's serial ports resemble those of the 850 interface, possessing the same signals and functions and using a fully compatible built in R: handler. Why not make your connection the right connection... with our Connection! **\$89.95** 6 ft. Standard MODEM Cables **\$14.95** 6 ft. Standard Printer Cables **\$14.95**

2. Printer Connection

It may look just like an ordinary cable... but don't let its simplistic styling fool you! This little dynamo's electronics are built right into the cable end and it possesses the power of compatibility... printer compatibility. (Compatible with all 'centronics' parallel printers.) With the Printer Connection, you're no longer limited to 'Atari Only' printers.

So, for you "adventurous" Atari owners who dare to explore the world of printers... this one's for you! **\$59.95**

3. Multi I/O

Five functions in one box give your 130XE or 800XL the leading edge in performance and execution.

- 1) **RAMDISK:** Choose from two versions; 256K or 1Meg. Built in software allows the RAM to be partitioned into multiple disks as desired. The Multi I/O has its own AC power supply which allows the RAM to retain its memory when the computer is off.
- 2) **PARALLEL PRINTER INTERFACE:** A 'centronics' type parallel interface which uses a standard 850 cable. Accessed as P1 or P2: with or without LF.
- 3) **SERIAL PRINTER/MODEM INTERFACE:** This port accepts either a serial printer or RS232 type MODEM. The 850 handler is built in; always there when needed, which means an extra 1800 bytes of free memory! Built in software also allows a serial printer to appear as a parallel printer and provides it with XON/XOFF software handshaking.
- 4) **SPOOLER:** Use any amount of RAM as a print spooler. Works with either of the specified printer ports. Built in software features: Pause, Resume, Repeat Copies, Clear and Size.
- 5) **HARD DISK INTERFACE:** Supports up to

eight SASI and SCSI controllers at the same time to use industry standard 5-1/4" and/or 3-1/2" hard drives. 256K **\$199.95** 1Meg **\$349.95** 130XE Adapter (adds two cartridge slots) **\$19.95**

4. Optional 80 Column Adapter

Tune-in to 80 columns of information with the addition of our new 80 Column Adapter. Simply plug it inside of the Multi I/O case and watch it perform! The Adapter supports both monochrome composite and RGBI monitors. **\$99.95** AFA 80 Column Boards (for the Atari 800) **\$99.95**

5. US Doubler

Expanding the 1050's strength is what ICD's US Doubler is all about... a true performer in the niche of hardware modifications. With the simple addition of this chip set, your Atari is transformed into a powerhouse, radiating with innovative qualities never before possessed in a 1050; like true double density for greater storage and an accelerated I/O rate designed to triple your speed when combined with SpartaDOS.

Furthermore, the US Doubler is fully compatible with existing Atari software and not only supports true double density but, single density and the 130KB 'Dual Density' (1050 Mode) as well. ICD's US Doubler Package comes complete with two plug-in chips and SpartaDOS Construction Set (including two manuals and two program diskettes). **\$69.95**

US Doubler 1-4 without SpartaDOS Construction Set **\$39.95**

6. SpartaDOS Construction Set

Perfection... that's how we describe our DOS and we're sure you'll agree when you put the SpartaDOS Construction Set to work. It supports everything from the 810 disk drive to hard disk drives. RAMDISKS with the RAMBO XL modified 800XL or 1200XL, the 130XE, the modified 320K XE plus the AXLOX 128 board for the 800! And there's more...

A special menu file allows rapid transfer, erase and lock or unlock of tagged files, using only the Space Bar, Option, Start, and Select keys. The utility package also features a 32 character keyboard buffer, intelligent switching between disk densities, a binary file game menu, subdirectories, time/date file stamping, and a 175 page manual containing everything you ever wanted to know about SpartaDOS and the US Doubler. **\$39.95**

7. SpartaDOS X

Just what your 8 bit has been waiting for... a cartridge based DOS which adds increased power to your computer and includes a surplus of features such as 80 column support, Ultra Speed operation with the US Doubler and the

new 3-1/2" Atari drives plus high speed support for standard Indus GT drives. And for you programmers, now the time consuming process of searching and indexing is streamlined due to the built in data base's incredible speed. **\$79.95**

8. R-Time 8

We've got the time if you've got the Atari. In fact, the R-Time 8 will even provide you with continuous and automatic date information as well! Its unique piggyback cartridge sports a clock board and a three to five year battery back up. A top extension port welcomes the use of additional cartridges since this handy device of ours requires no cartridge area memory of its own. What's more, the R-Time 8 works with all DOS types and plugs into any slot on your Atari computer.

Put our SpartaDOS to work with the R-Time 8 and just like magic... each file you create or rewrite is now instantly tagged with time and date information. We're sure that the R-Time 8 will add a new and exciting dimension to your Atari, one that you'll rely on time after time! **\$69.95**

9. RAMBO XL

You'll be saying "thanks for the memory!" after the RAMBO XL transforms your 800XL or 1200XL into a mighty 256K computer and makes it memory compatible with the 130XE. Now your XL can support BASIC XE extended mode or the standard 64K RAMDISK supplied with Atari DOS 2.5. The new RD.COM handler supplied with SpartaDOS Construction Set gives a 192K RAMDISK... that's enough memory to duplicate a full double density disk in one pass! Our RAMBO XL package includes a plug-in decoding board and complete installation instructions.

You must supply the eight 256K DRAMS (available from ICD for \$32.00) and the DOS of your choice. The RAMBO XL provides a low cost answer to high performance memory enhancement. **\$39.95**

*Get Your Computer
A Friend Today!*



ICD, INC. • 1220 Rock Street
Rockford, IL 61101-1437 • (815) 968-2228
ELN:6289-3936 • FAX:(815) 968-6888

**SAN LEANDRO
COMPUTER CLUB**
P.O. BOX 1506
SAN LEANDRO, CA 94577-0374

An independant, non-profit organization of ATARI microcomputer users.
Membership fees of \$20.00 per year for residents of the U.S. and Canada and \$40 for others provide access to the club print and magnetic libraries, subscription to the Journal and participation in club activities.

Club Officers:

President	Bob Barton	352-8118
Vice-President	Mike Sawley	482-5061
Treasurer	Lois Hansen	482-2222
Secretary	Jim Moran	523-9265

Program Chaimen:

General meeting	Richard Scott	887-8357
ST SIG meeting	*	*

Software Chairmen:

8-bit	Mark Perez	792-0398
	Cliff Schenkulzen	537-5245
16-bit	Ron Points	436-4373

Disk Librarians:

8-bit	James Moran	523-9265
16-bit	Ron Points	436-4373
	Tom Andrews	436-4373

Print Librarian:

Einar Andrade	484-4484
---------------	----------

Technical Advisers:

C language	David Beckmeyer	632-1367
Mach. language	Frank Daniel	471-8133

Special Interest Groups

Basic SIG	Guy Cochrane	582-5561
Beginners SIG	Richard Stiehl	352-3444
Business SIG	Chuck Amaral	707+446-4600
Communications SIG	Mike Sawley	482-5061
Education SIG	Lois Hansen	482-2222
Pascal SIG	Mike Morrow	933-0236
	Gary Newport	785-2047
ST SIG	Bob Barton	352-8118
ST Software SIG	Bob Barton	352-8118

SLCC JOURNAL

Permission to reprint uncopyrighted articles in any non-commercial application is permitted without written authorization, provided proper credit is given to the SLCC and the author. Opinions expressed are those of the authors and not necessarily those of the SLCC.

Editor	Bob Woolley	865-1672
Asst, editors	Frank Kliever	483-1481
	Jennie Kliever	
Layout asst.	Ralph Cavagnuolo	889-9060
Cover Art	Jim Hood	534-2197
Laser Printing	Tom Allen	483-0234

TABLE OF CONTENTS

Introduction To Spreadsheets	4
8-bit Telecommunications	6
How to Fall Down an Elevator Shaft	7
PIO Controller	8
Expo Report	11
Educational News	12
Turbo Basic Returns	14
June Minutes	18
July Calendar	19
July Meeting	BC

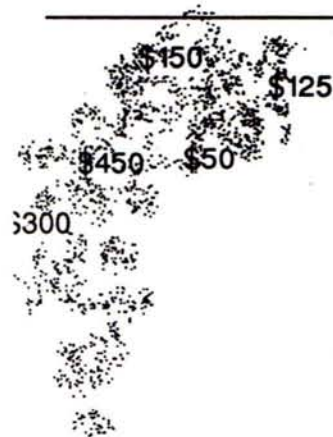
OFFICIAL SLCC BBS

8/16 KEY SYSTEM 415-352-5528

16 BIT STU'S PLACE 415-782-4402

ADVERTISING RATES:

FULL PAGE FOR 3 ISSUES \$100
FULL PAGE \$50. QUARTER PAGE \$18
HALF PAGE \$30. BUSINESS CARD \$5



Reprinted from Current Notes, February 1987
Article by Ron Peters

Perhaps some of you have seen the traditional, green accounting ledger paper, with several columns across the top and 25-30 lines running top to bottom. The "bean counter" types use these ledger sheets for budgeting, inventory, and ledger purposes. A typical budget sheet would have the months of the year across the top, and line items (advertising, telephone, salaries, travel, etc.) running down the left side.

Then someone plugs in the dollar amount for each item under every month, like the following (brief) example for a company we'll call Sicktemps (they supply sick temporaries to companies with lower than average absenteeism problems):

1987 EXPENSE BUDGET - SICKTEMPS, INC							
Item	Jan	Feb	Mar	Apr	May	Jun	Total
Insurance	50	50	50	50	50	50	300
Salaries	100	100	100	100	100	100	600
Supplies	25	25	25	25	25	25	150
Telephone	10	10	10	10	10	10	60
Totals	185	185	185	185	185	185	1110

The above could easily be a home budget, or a listing of inventory items in different categories, or names and addresses, etc. In other words, the "spreadsheet" does not have to be just numbers, it can contain names, lists, text--anything.

OK, back to the task at hand. Looking at the above spreadsheet it is obvious that the columns (down) and the rows (across) are cross-totalled. Thus, you can easily see the total expense for each line item (e.g. insurance)

A Brief Introduction to Spreadsheets

and or each month, with a grand total at the lower-right.

If you are doing this budget on paper, and decide that supplies are going to cost \$35 a month, instead of the original \$25, you will have to erase all the numbers in that row, as well as all the totals, and do a lot of addition to get a corrected budget sheet.

Here comes the electronic spreadsheet. Instead of putting these numbers on a sheet of paper, you "type" them onto a worksheet in your computer. And, you set up the worksheet so that it will automatically give you totals for each row and column. Now, change the supplies amount to \$35 and the program instantly recalculates all the totals--before you can blink!

This feature also gives you the "what if" option; that is, the ability to change any of the data to see the results on the total. For example, if you were doing a home budget, you could ask "what if" my wife were to spend \$300 per month instead of the \$1000 per month on clothes? The final results would be immediately calculated (but not admissible in divorce court).

"Big deal", you say. Well, it is a big deal if you have 120 columns and 234 rows, with a lot of changes to make. A computer with 512K of memory can typically hold a spreadsheet that would be 20 feet wide by about 40 feet high on paper. Try working on that within the confines of your 10 x 10 foot office!

"How do I look at that big sucker on my computer screen?", you say. Through a series of "windows" that allow you to look at any portion of the spreadsheet on your computer screen.

(spreadsheets continued)

Each portion of an electronic spreadsheet (called a cell) can contain numbers, text, or formulas. The formulas can range from simple sums of columns (for example) to complicated algebraic expressions.

Any portion (or all) of the spreadsheet can be printed or saved on a floppy disk for later use. You can even create a "template" spreadsheet, which is nothing more than a spreadsheet with the labels and formulas, but without the actual data. For example, our budget template would have the row and column labels, and the total formulas, but no actual monthly dollar amounts. Then we could use the budget template over and over for different year budgets.

Some spreadsheet programs (like LOTUS 1-2-3 or VIP Professional) can produce graphs of the data contained in the spreadsheet. Or you can transfer any portion of the spreadsheet to a document in your word processor.

Perhaps the most practical application I have found for using a spreadsheet at home is for doing my income taxes. Using a tax template, I

can plug in all the numbers for each tax schedule and see the final results (hopefully a refund). Using the "what if" function here can be real fun!

Like a word processing program, you don't have to spend a fortune to get a good spreadsheet program that will more than do the job for you. I use Syncalc+ which costs about \$40. I'm sure there are a lot of other programs out there in the same price range that are equally as good. Shop around.

END

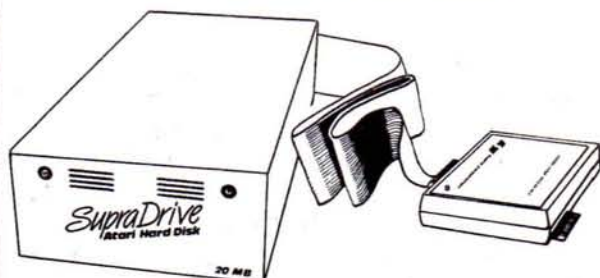
St SIG AUCTION

BE SURE TO COME TO THE JULY ST MEETING AND MAKE YOUR BID ON THE MAGIC SAC.

ST DISK OF THE MONTH: WHEEL OF FORTUNE EDITOR, A FUN GERMAN ARCADE GAME, PLUTOS-SPACE ARCADE, A MAZE GAME CALLED TUNNEL-FAST MOVING, NICE GRAPHICS(GFA). ALSO A LABELING PROGRAM FOR DISK LABELS.

Buy From The Hard Disk Experts!

ATARI XL/XE



20 MB Complete System \$ 699.00
Includes Hard Disk Interface with hi-speed parallel port. MYDOS disk operating system and 3.5 inch 20 MB Hard Disk.

Interface and Software Only \$ 149.95

ATARI ST

Build Your Own System!

Includes Supra's proprietary Hard Disk Interface and Boot Software. You add a Surplus Hard Disk, Controller and Case for a complete system.

Interface W/ Boot Software
Only \$ 119.95

Complete Systems:

20 MB	\$ 699.00
30 MB	\$ 995.00
60 MB	\$1995.00
250 MB	\$3995.00



Available at your local dealer, or call

Supra Corporation

1133 Commercial Way / Albany, OR 97321 / (503) 967-9075

Eight Bit Telecom news

by Michael Sawley

Corrections To Last Article-----There seems to be a small error on my part in the review of OASIS BBS previously. I said that the BBS had a hard time figuring out when a caller dropped carrier (rudely hung up on you). This turned out to be a hardware problem. It seems that a dip switch setting in the modem was wrong. Once that was corrected, OASIS can tell almost immediately when a caller drops carrier. I suppose I can try and save face for myself by stating that there is no information on dip switch settings in the BBS documentation, and so I left them the way they were.

New Features Added

to Oasis----- On a happier note, there have been about three updates sent our way since we first started using OASIS. Some of the new features are:

1) You can now skip past the welcome at log in. When you see the initial prompt from OASIS "<Space> if using Flash, else <Return>:", you can type in your password, but with a prefix character that will tell OASIS the translation that you want. If you type an 8 followed by your password, thus: 8TEST then OASIS will switch to ATASCII and ask for your phone number. Flash users will use an F as the prefix. Sorry ASCII callers, nothing for you yet.

2) If you are going to download a long file and want to leave your computer during the transfer, you can set up OASIS so that it will log you off as soon as the download is completed. When OASIS asks what transfer protocol to use, you should enter an O (oh, not zero) and then the protocol that you want to use, thus: OC if you wanted CRC. When the transfer is completed, OASIS will log you off.

3) You don't need to be in the download

section to download files. You can make use of the Q)uick Download command from the main menu. You will need to know the file name and also the subdirectory that the files is held under. When you have a look at the file name listings, you should make note of the first line. It will look something like: XEDL>*. * meaning that OASIS is looking for all files in the subdirectory XEDL. If you want to use the Q command to get a file that is listed there, you need to enter: XEDL>filename leaving off any extender that you think might exist.

4) At times there will be long messages and OASIS will stop after 18 lines and show you a "-MORE-" prompt. If you press any key at this point, OASIS will show you another 18 lines and wait again. If you press C then OASIS will no longer pause after each 18 lines. This toggle will stay on as long as you don't return to the main system prompt. There are a number of new features, but I'll let you fool around with the BBS to discover them

-----Remote Sysop Wanted!-----

Now that we seem to have a BBS program that is able to let our XE and your ST work together, we are looking for someone in the club that would like to help look after the ST sections.

I don't have an ST just yet, and so am working a bit in the dark as far as that goes. James Moran has been helping out as much as he can, but he does not always have the time nor a machine. If you are interested in this, please see me at the next meeting, or leave me a note on the BBS.

Where have all the Members Gone?----- On a sad note, we were most disappointed in the lack of use given the BBS by club members on Friday evening and Saturday. We locked out all but club members for those days over the past two weekends, but the board was vastly underused. Perhaps we should only lock out System Guests, or not lock out anyone?

(continued on next page)

Additional Notes

There have been a number of changes made to OASIS since we first put in online back in March. Of most interest should be the ability to run user written programs online. We are sorry to say that we only have two of them right now, but are looking for more to come in the near future. These user written programs need to be written in assembly language and we need some help in this area. If there is anyone that knows assembly on the XE and would like to help us out a bit, please contact us. All the hard work has been done already and there is an equate file that lets you make calls to OASIS for such things as opening and closing the modem, checking for a lost connection, getting and putting characters to the modem, reading and writing a file and so on. Also, if you have any ideas on what you would like to see, please let us hear from you.

There have been some files uploaded that we were unable to get running on the ST. After careful examination, we find that they have been padded with control-z characters. This is the default setting for Flash, but should be changed to byte padding for the last block. Please make sure you alter your Flash menu to reflect this need for BYTE PADDING on the last block.

This brings up the need for ARCing files before you upload them, not only to save your time in uploading less data and our savings in disk space, but also for the integrity of the upload. A vast majority of the time, ARCX or DCOPY will strip off these extra control-z characters as it goes through and extracts the files contained in the "master" .ARC file.

If you have some of files that will not work, you might be able to get them into "running" condition with the use of CUT26.ARC written by Makoto Nagata. This .ARC file contains both CUT26.PRГ and softdocs and is available for downloading from the ST section on The Key. Our thanks to Makoto for creating this file.

END

How To Fall Down An Elevator Shaft without really trying.

Game Review: Space Quest, 16 bit , Sierra On-Line, reviewed by Jennie Kliever.

I decided to walk my little man closer to the loading shaft to find a clue about getting the space shuttle to rise out of the opening. It was quite startling and amusing to see him suddenly fall right in- head first. A sarcastic message appeared on the screen asking if I thought scrambling my brains would help me think better in the game.

Space Quest is a game that involves both puzzle solving and some arcade skills to "save the universe" from Sarien destruction. It has a good story line that keeps one interested and many surprises thrown in to keep you on your toes. The scenery is excellent and you are constantly changing to different rooms or outdoor backgrounds. In fact the only real negative comment that I have about the game is that it does take about 6-7 seconds when you walk from one background scene into another-which can be quite annoying at times. There is a Save Game feature that you will be using quite a bit.

If you don't want any hints to the game then stop reading at this point. I'm not going to make the hints too obvious but just reading about the different situations may also spark your interest in the game:

- 1) Search the bodies on the Arcada spaceship.
- 2) There is a way to hide against the walls to avoid being disintegrated by a Sarien.
- 3) When playing the slot machine, each time you win 10 buckazoids save the game- you'll need a lot of them to buy a ship and droid.
- 4) Orat would not accept an invitation to a swim party.
- 5) Be sure to have more than one drink at the bar .

JK

Old MacDonald had an Atari...,

P-I, P-I, O.....

zzzt..... zzzzzzztttt... zzzt.....
zzzt.

What the heck are those kids doing on Robert's computer?

Zzzzzzztttt... zzztt...zzzzzzzzzztt...zzzztt!

Taking pity on the poor 1050, I venture down from the attic with visions of all those little plastic pieces self-destructing inside the drive. These machines only get so many seeks in them, then it's move into room 144 for the duration.

Hmmmm. Leather Goddess of Phobos! Seems that someone actually read a review in the Journal! I suppose that this sudden interest comes with the fuzz on the upper lip and feet that are too big. Mrs. Pacman is relegated to the cartridge case - Strip Poker and LGOP are the hot items now!! The boys will survive this phase, I suppose, but judging from all the seeks that poor old 1050 has to do, it may never see the other side of 14. Every time Mark enters a command, the program goes to the drive!! I either have to ruin their fun or find a better way....

The answer is to run from ramdisk, of course. Since I have a very trick piece from ICD, it should be easy. Take out the old MIO and plug it into Robert's 800XL. I know from experience that the 256K upgrade in his computer will not run most games since you have to have a handler in there someplace. With the MIO and it's built-in PIO handler, it is a piece of cake. Sector copy side two (the side you run the game from) onto the MIO ramdisk, boot from side one in the 1050 and swap D1: and D2: with a SELECT/RESET.....

Guess what?? It doesn't work! 256K in the 800XL, 256K in the MIO and I have to run to the 1050 for every entry!!! What a drag!! It seems that the program will not take being RESET. You have to switch disks when it asks for side two without disturbing any part of the memory. @*%!%\$* If I just had some way to vector the I/O externally - with a switch or something. (oh, boy! He's gonna take the thing all apart and hack in a bunch of wires and stuff...)

Maybe I can adapt the PIO controller that I'm working on in the attic?... Take a Supra MicroPort, add a couple of ICs, a switch or two, and write a little handler.... Voila!! A programmable, switch - selectable, PIO controller!!

Takes four ICs and a Supra MicroPort XL. It uses the memory under the ROM at location \$D800 - \$D8FF. You load any PIO code you like in there and run your program. It could be used as a printer buffer, a screen dump routine, I/O indirection, ramdisk, or anything that uses interrupts, RESET or SIO. The OS traps all three operations thru the PIO code. I used the RESET vector to provide a FREEZER

(cold-start) function and the SIO vector to run two 96K ramdisks. Two switches select which ramdisk (if any) will respond to D1:.

Downstairs to the Den of Phobos.... Sector copy side one to RD1 and side two to RD2. Set D1: as RD1 and cold start using the new PIO function. Up comes the screen asking for side two.... Set RD2 as D1: and hit RETURN.... off they go into the cosmic clashes - no disk access at all! As an added bonus, the 1050 is set to D2: whenever a ramdisk is selected as D1:, so it is used for SAVE and RESTORE. Works great!!! I can finally use all this memory on programs not designed for ramdisks!

This is great for Robert and Mark, but how about something like Print Shop?? Well.... Sector copy side one to RD1 (some sectors will not copy due to the copy protection - not to worry, copy what you can). Then sector copy side two to RD2. Now, you must boot the original disk (the one you paid for... the one Broderbund sold you.... somebody pays for every copy, pal....) in the 1050. At the first screen, switch RD1 as D1:. The rest of the program will run from the ramdisk - switch in RD2 when required. Works just fine!!

So, how do we build this thing?

You need:

1 - Supra MicroPortXL (They were selling them for \$25 at the Santa Clara Atari Expo.)

- 1 - 74HC245 IC
- 1 - 74HC74 IC
- 1 - 74HC10 IC
- 1 - 74HC04 IC
- 3 - miniature switches that suit you
- 8 - 10K 1/4wt resistors

Assemble the Supra board power supply and 74LS688 decoder. note: do not install the 6520 PIA chip for this project.

Mount sockets for the other four ICs and the three switches in the breadboard area of the card.

Mark the components as:

- IC1 - 74LS688 part of MicroPort
- IC2 - 74HC04 inverter
- IC3 - 74HC10 NOR
- IC4 - 74HC74 Quad Latch
- IC5 - 74HC245 Buffer
- IC6 - 6520 PIA - Even though not installed, I used this site as solder pads.

I am going to try to lay this out by giving you the wiring nets for each of the new ICs. That should be sufficient to duplicate the circuit.

IC5 -----

pin 1 - ground (gnd)
 pin 2 - pin 2 of IC4 - pin 33 of IC6
 pin 3 - pin 32 of IC6
 pin 4 - pin 31 of IC6
 pin 5 - pin 30 of IC6
 pin 6 - pin 29 of IC6
 pin 7 - pin 28 of IC6
 pin 8 - pin 27 of IC6
 pin 9 - pin 26 of IC6
 pin 10 - gnd
 pin 11 - 10K to gnd and COLDSTART n/o to +5v.
 pin 12 - 10K to gnd
 pin 13 - 10K to gnd Note: Additional switches
 pin 14 - 10K to gnd could be wired to pins
 pin 15 - 10K to gnd 12 thru 16
 pin 16 - 10K to gnd
 pin 17 - 10K to gnd and RD2 n/o to +5v.
 pin 18 - 10K to gnd and RD1 n/o to +5v.
 pin 19 - pin 6 of IC3
 pin 20 - +5v
 NOTE: switches are wired: IC ---- sw n/o ---- +5v

IC4 -----

pin 1 - pin 34 of IC6
 pin 2 - pin 33 of IC6 - pin 2 of IC5
 pin 3 - pin 12 of IC3
 pin 4 - +5v
 pin 5 - n/c
 pin 6 - pin 43 of the PIO buss connector
 pin 7 - gnd
 pin 8,9,10,11,12,13 - n/c
 pin 14 - +5v

IC3 -----

pin 1 - pin 4 of IC3 - pin 25 of IC6
 pin 2 - pin 3 of IC3 - pin 4 of IC2
 pin 3 - pin 2 of IC3 - pin 4 of IC2
 pin 4 - pin 1 of IC3 - pin 25 of IC6
 pin 5 - pin 1 of IC2 - pin 21 of IC6
 pin 6 - pin 19 of IC5
 pin 7 - gnd
 pin 8,9,10,11 - n/c
 pin 12 - pin 3 of IC4
 pin 13 - pin 2 of IC2
 pin 14 - +5v

IC2 -----

pin 1 - pin 5 of IC3 - pin 21 of IC6
 pin 2 - pin 13 of IC3
 pin 3 - pin 19 of IC1
 pin 4 - pin 2+3 of IC3
 pin 5,6 - n/c
 pin 7 - gnd
 pin 8,9,10,11,12,13 - n/c
 pin 14 - +5v

Plug the MicroPort into the connector on the back of your 800XL and load the PIO code. When you hit RESET, the controller will be enabled on the PIO buss. Hold the COLDSTART switch down when you RESET, count to 3 after you release RESET and let go of COLDSTART. The system should go to the diagnostic (? -- that's a diagnostic??) screen. From there, you will coldstart when you hit RESET. Hold OPTION down at this point if you don't want Basic.

The operation of the other two switches is programmed to enable 96K of Rambo memory as a ramdisk that responds to SIO requests to D1:. When either ramdisk bank is enabled, the 1050 drive numbers are bumped by 1 - that is, a drive addressed as D1: on the SIO buss will answer a SIO call to D2:. YOU can program it any way you want - you don't need an EPROM burner for this guy! In fact, there is no memory in the extra hardware at all.

If you would like to be able to select more options on your unit, add switches to pins 12 thru 16 of IC5. The COLDSTART switch will LDA from \$D1xx as an \$80. RD1 reads as \$01. I leave the other values as an exercise to the programmer. If you really have a problem with this device, leave me [75126,3446] a message on Compuserve in the Atari8 SIG - no E-Mail, please, OK?

For those of you with an XL without the 256K upgrade -- there is a version of this project that has up to 256K of battery retained memory up in my attic... somewhere..... Probably near the 1200XL version..... someplace.....

Here is the single density handler that I used for the original testing in LISTED MAC65:

```
0100 ;SD RAMDISK CODE 6-28-87
0110 ;BOB WOOLLEY [75126,3446]
0120 ;
0130 SAV301 = $31
0140 SRCELO = $32
0150 SRCEHI = $33
0160 DESTLO = $34
0170 DESTHI = $35
0180 DSTCTL = $37
0190 SRCCTL = $36
0200 DVSTAT = $02EA
0210 SDEVIC = $0300
0220 SBUNIT = $0301
0230 DCOMND = $0302
0240 DSTATS = $0303
0250 DBUFLO = $0304
0260 DBUFHI = $0305
0270 DBYTLO = $0308
0280 DBYTHI = $0309
0290 DAUX1 = $030A
0300 DAUX2 = $030B
0310 COLDSTART = $E477
0320 SWVALU = $D1F0
0330 ;
0350 * = $D800
0360 .BYTE $00,$00,$00
0370 .BYTE $80 ;$D803
0380 .BYTE $00
0390 JMP SIOVEC ;$D805
0400 JMP IRPVEC ;$D808
0410 .BYTE $91 ;$D80B
```



```

0420 .BYTE $00,$00,$00,$00
0430 .BYTE $00,$00,$00,$00
0440 .BYTE $00,$00,$00,$00
0450 .BYTE $00
0460 ;
0470 ;$D819 - INIT VECTOR
0480 LDA SWVALU ;CHK
COLDSTART
0490 AND #$80
0500 BNE WARMSTART
0510 WAITUP LDA SWVALU
0520 AND #$80
0530 BNE WAITUP
0540 JMP COLDSTART
0550 WARMSTART LDA #$01
0560 STA $0247 ;SET DEV
BIT
0570 RTS
0580 ;
0590 IRPVEC RTS
0600 ;
0610 PDEVIC .BYTE $31
0620 MAXLO .BYTE $D0
0630 MAXHI .BYTE $02
0640 ;
0650 SIOVEC LDA SDEVIC
0660 CMP PDEVIC
0670 BNE SERBUS
0680 LDA SWVALU
0690 AND #$03
0700 BNE DIRAM
0710 ;
0720 LDA SBUNIT
0730 CMP #$02
0740 BNE SERBUS
0750 BEQ RAMDSK
0760 ;
0770 DIRAM LDA SBUNIT
0780 CMP #$01
0790 BEQ RAMDSK
0800 INC SBUNIT
0810 ;
0820 SERBUS CLC ;NOT FOR
PIO
0830 RTS ;BACK TO OS
0840 ;
0850 RAMDSK LDA DCOMND
0860 CMP #$53
0870 BEQ STATUS
0880 CMP #$21
0890 BNE RDWRT
0900 ;
0910 LDA DBUFLO
0920 STA SRCELO
0930 LDA DBUFHI
0940 STA SRCEHI
0950 LDA #$FF
0960 LDY #$00
0970 STA (SRCELO),Y
0980 INY
0990 STA (SRCELO),Y
1000 STATUS LDA #$00
1010 STA DVSTAT
1020 STA DBYTLO
1030 STA DBYTHI

```

```

1040 ;
1050 DONE LDA #$01
1060 RETURN STA DSTATS
1070 TAY
1080 SEC
1090 RTS
1100 ;
1110 CMDREJ LDA #$01
1120 STA DVSTAT
1130 LDA #$8B
1140 BNE RETURN
1150 ;
1160 RDWRT CMP #$52
1170 BEQ SETREGS
1180 CMP #$57
1190 BEQ SETREGS
1200 CMP #$50
1210 BNE CMDREJ
1220 ;
1230 SETREGS LDA DAUX1
;SECTOR # -1
1240 SEC
1250 SBC #$01
1260 TAX ;X HOLDS SECLO
1270 LDA DAUX2
1280 SBC #$00
1290 TAY ;Y HOLDS SECHI
1300 CMP MAXHI
1310 BCC SIZEOK
1320 BNE CMDREJ
1330 TXA ;SECHI=MAXHI
1340 CMP MAXLO ;SO, CMP
MAXLO
1350 BCS CMDREJ
1360 ;
1370 SIZEOK LDA SWVALU
;WHICH RAMDSK?
1380 AND #$02
1390 BEQ SETCTL
1400 CLC
1410 TYA ;BUMP SECTOR
HI
1420 ADC #$03 ;BY $300
1430 TAY
1440 SETCTL TXA ;GET SECLO
1450 ROLA
1460 TYA ;GET SECHI
1470 ROLA
1480 TAY
1490 TXA ;GET SECLO
1500 ROR A
1510 AND #$3F
1520 ORA #$40 ;POINT TO
$4000
1530 STA SRCEHI
1540 STA DESTHI
1550 LDA #$00
1560 ROR A
1570 STA SRCELO
1580 STA DESTLO
1590 ;
1600 LDA $D301
1610 STA SAV301 ;SAVE FOR
AFTER
1620 AND ANDBYT ;ZERO SEL

```

```

BITS
1630 ORA ORLIST,Y ;SET SEL
BITS
1640 STA SRCCTL
1650 STA DSTCTL
1660 ;
1670 JSR SETDIR
1680 ;
1690 LDY #$00
1700 LDX DSTCTL
1710 MOVDAT LDA SRCCTL
1720 STA $D301
1730 LDA (SRCELO),Y
1740 STX $D301
1750 STA (DESTLO),Y
1760 INY
1770 BPL MOVDAT
1780 LDA SAV301
1790 STA $D301
1800 JMP DONE
1810 ;
1820 SETDIR LDA DCOMND
1830 CMP #$52
1840 BEQ RDCMD
1850 LDA DBUFLO
1860 STA SRCELO
1870 LDA DBUFHI
1880 STA SRCEHI
1890 LDA $D301
1900 STA SRCCTL
1910 RTS
1920 ;
1930 RDCMD LDA DBUFLO
1940 STA DE
STLO
1950 LDA DBUFHI
1960 STA DESTHI
1970 LDA $D301
1980 STA DSTCTL
1990 RTS
2000 ;
2010 ;ICD RAMBO
2020 ANDBYT .BYTE $83
2030 ORLIST .BYTE
$20,$24,$28,$2C
2040 .BYTE $40,$44,$48,$4C
2050 .BYTE $60,$64,$68,$6C
2060 .BYTE $00,$04,$08,$0C
2070 ;
2080 .END

```




The MEGAS are coming... The MEGAS are coming...

EXPO article By Jim Moran

The "World of Atari" show was held on Friday and Saturday June 19th and 20th, this show originally started on a rather rocky note but ended on a very positive one. Despite the limited time we had to get ready it turned out first class.

The main reason it worked out well is the tremendous amount of time and work put into it by Atari and the user groups. Sandi, Darrell & Neil from Atari had their jeans on working with a large group from all five clubs as we put finishing touches on the show on Thursday evening.

The show was at the Santa Clara convention center, probably the nicest facility that could be found anywhere. It makes all other convention centers look like chicken shacks. More time, money and effort was put into advertisement for this show than any other of the series, all this paid off on Friday as the first day of the show turned out well attended.

Saturday was even better with a mob from ten AM till about five PM. Though the final numbers are not known yet there is no doubt the show was a success.

What made it all worth while was the first real showing of the new equipment. The Mega's were there in all their glory and speed making everybody do a bit of wishing. The PC was doing what most of them do best. (not much, compared to the Mega.) The laser was lasering. (in the middle of a crowd both days.) Atari also brought the 80 column card for the 8bit line and one of their BBS setups was there and working. On one table all by itself was a TV set showing several of the commercials that will soon be showing on your TV. (Wait till you see these) And you think thats all? No, the rarest item of all, Jack Tramiel, was also at the show.

Desktop publishing was represented by all the big names, Publishing Partner, Easy Draw, Graphic Artist and Fleet Street all who took part in a conference along with Leonard Tramiel which was moderated by our own Jim Wood.

Astra Systems was represented by Lou Schwing its head man. He started a System HD+ hard drive Thursday afternoon and left it on till the show ended to show its cool running and durability. This drive was working, showing pictures the whole time, one every second or so. While the drive was working he bounced it all over the place and it never skipped a beat.

Word Perfect, Beckmeyer, Analog, Antic, B & C Computervisions, San Jose Computers, PC Options, Michtron and Hybrid Arts were just a few of the many vendors that made this show a success.

While the show was going on in the main hall there were continuing classes going on for new users to become familiar with both ST's and XE's. Lois Hansen was there running an educational booth along with her husband and son. Rumor has it that her husband finally saw the light and bought her a color monitor at the show, seems he didn't realize what was missing with only a monochrome monitor. Next thing you know he might pack in the Fujijunk PC he has for a good computer.

Last but not least we must thank all the members who gave a lot of time to make this show work. The club booth had to be extra well staffed this time as there were many people who wanted to talk about both computers and the software to make them work. Special thanks to Sandi Austin who must have aged ten years on this one.

Now for next year, lets start planning now and do it right. With a bit of early planning and a little work we could double both the size and attendance of the show.

END

MOSTLY 16-BIT EDUCATIONAL SOFTWARE NEWS

State of the St+8

By Lois Hansen SLCC Education SIG

In preparation for the WORLD OF ATARI fair, I called up some of the software companies known to be producing educational software for the ST. I thought some of you who didn't make it to the fair might like to know some of the news:

UNICORN: Perhaps the most exciting news is from Unicorn; they have come out with no less than TEN educational programs for the ST and they have several more programs very near to release. I spoke with the president of Unicorn, Jeff Stark, who told me that they have ABANDONED writing educational software for the Mac because Apple is now trying to position it as a business machine and retailers don't want to display educational software for the Mac. Unicorn is continuing to write for the Amiga and will get involved with the Apple IIGS, but at least at this point, their main 16-bit machine is the Atari ST. Jeff said that Unicorn has been designated the "official" Atari ST educational software line, and will be offered to retailers by Atari as part of the package when they sign up new dealers. If you have comments about their products, want to ask for specific kinds of software in the future, or simply want to encourage them to continue to develop more educational software for the ST, give them a call. The number's right there in your documentation. They're only in Las Vegas...when I called, the president answered the phone.

The newest products just released from Unicorn are Read-a-Rama for ages 5-8, a 2-disk program that does pictures to words and will accept user input words and Aesop's Fables, a reading comprehension program for the same age group. This program took 8 months to develop, is on two disks, has 12 animated stories, and 1000 words of vocabulary Q & A. Coming soon (supposedly in July) are two more: Magical Myths, a reading comprehension for grades 4-8, and Word Master, a vocabulary builder for grades 3-8. Word Master will accept user input words, and additional data disks of words are planned.

FIRST BYTE: I also spoke with Richard Jacks, Vice President of Engineering at First Byte. Their specialty is talking programs for the ST; the obvious application is for pre-readers, but

"reluctant" readers will find the First Byte talking math tutorial on the four basic operations, Mathtalk, very helpful. Richard told me about some other programs out now and coming soon: Out now is First Shapes, a preschool program that talks, and Mad Libs, based on the party game of that name. There is also another Mathtalk, about fractions, percents and decimals, and another preschool program, First Letters and Words. Also planned for release soon is SmoothTalker, not an educational program per se, but a program which will speak (or spell) any ASCII (text with no control characters) file your word processor can give it. This has obvious applications in beginning reading, and Richard said that Mac users in universities have used it as a kind of group class notes review session facilitator. Gather around the ST the way their grandparents gathered around the radio.... He said it was also useful for checking input to spreadsheets. This program, like all the First Byte line, will list at \$49.95. A bargain in this latter case; some of us may want to call this company (which has an 800 number in L.A.) and tell them what we think of \$50 as a price for kids' software on a machine that costs considerably less than \$1000. But be ready to counter their wails about development costs with your claims of numerous friends with ST's ready to purchase educational software at a lower price. Remind the company of Borland (Turbo Pascal, etc.) and how people won't pirate if the price is low enough.

SPINNAKER (WINDHAM CLASSICS, TELLARIUM): The bad news comes from this Boston company, known for its 8-bit educational software like Snooper Troops, Rhymes and Riddles, and In Search of the Most Amazing Thing. They had already abandoned the 8-bit machine, and now they are ceasing distribution of their excellent ST math program, Homework Helper, and their graphic adventure series based on classic school texts like Treasure Island. The Tellarium series of more adult, popular books, such as Fahrenheit 451, is also cancelled for the ST. The PR person I spoke with, Libby McCauley, had been on the job only a month, and could not give me any coherent reason for this decision, other than they now preferred to emphasize their best-selling machines, Apple, IBM and Commodore, and that the company now was not exclusively educational, but had a three-part thrust: productivity, education and video. Obviously, now is the time for a few letters to convince Spinnaker that there is an Atari market after all.

State of the ST-8 continued

ANTIC Magazine software: Antic continues to publish cheap (\$19.95) 8-bit software suitable for teenagers (and above, of course), which, while not labeled educational, really is. There are simulations such as Earth Views and Orbit--A Trip to the Moon, which might appeal to your teenager. There are also some learning aids, such as speed reading and memorization helpers that might be helpful in your family. I have not seen any of their 16-bit.

ATARI CORP has finally released its cheap (\$18.95 for two disks!) educational software for the ST developed by the Arrakis Advantage Company. There are allegedly five packages of Algebra, two of Geometry, one each of Statistics and Trigonometry, four of Biology, and two each of Chemistry and Physics. I have seen Algebra, Geometry and Chemistry in the flesh at the show. Atari Corp gave us the Algebra I and Geometry I packages, which I will be evaluating and reporting about later. And that's the news from the SLCC Education Sig leader, Lois Hansen....if you know more, let me know and I'll spread it through the SLCC Journal. My phone number (tape) is (415) 482-2222. Afternoons are the best time to get me live (but you'll still have to listen to the dumb message; I'll pick it up when you talk). Or I will eventually get letters sent to the club mailbox.

Classifieds

Wanted: member advertising. Very low rates (free!!) Quality printing on laser printers via Publishing Partner. References, bonded, have papers and all shots.

The Journal will now accept Atari related classified ads from SLCC members in good standing. I will not place any particular restrictions on the size or layout of the copy as long as it does not get out of hand. This provides an ideal outlet for those under-utilized gems hiding in the bottom drawer of your computer desk. Just mail or phone your ad to the Journal and we will do the rest. Ed.

Right something for the Journal about what you like - because that's probably what everyone else would like, too!! I know I would ... Ed.

THANKS FROM LOIS

A big public thank you to everyone who helped me this year with the "Educational Atari" booth at the WORLD OF ATARI fair June 19 or 20. After the September fair, I went home with a splitting headache; not this time! Thanks first to those who lent their color monitors for the 8-bit display: Tom Combs, Glenn Fant and Petrona Selva, and to Peter Chen who stopped by the first morning to see if I had enough of them without his. And then many thanks to all of you who put in your four hours greeting the public: Bob Woolley and son, Robert, Glenn Fant, Tony Cesnik (of ABACUS), Jennie Kliever, Peter Norman and Don Safer. And for brief and sporadic appearances, my son and software expert, Steven Wagner.

Thanks also to Mark Dalldorf, owner of San Jose Computers in San Jose and Santa Clara, who lent us the 16-bit software without which the booth would not have been very interesting for ST owners. I should say here, that there appears to be a resurgence since September of interest in 8-bit educational software. SLCC members had their hands full on both sides of the booth, showing people software suitable for their children! Thanks finally to Atari Corp, both for lending the hardware, and for donating two of their new educational programs, Algebra I and Geometry. Watch for these to be raffled off, probably in September for back to school!

Turbo Fractals

Jerry Telfer has provided us with an excellent example of Turbo Basic programming. Study the following listing and incorporate it's techniques in your own Turbo Basic efforts.

```

1 EXEC SETUP:EXEC LOAD_ML:GOSB MENU
2
3 # CALC_PIXELS
4 SV=0:XP=0:X=X5:GOTO 6
5 X=X+XT
6 XP=XP+1:IF XP>=A1 THEN SV=1:GOSB PICD
  ONE
7 YP=A4+1:Y=Y5
8 Y=Y+YT
9 YP=YP-1:IF YP<1 THEN 5
10 AZ=0:BZ=0:AC=X:BC=Y:C=0:S=0
11
12 DO
13   IF C>CT OR S>5L THEN EXIT
14   AT=AZ*AZ-BZ*BZ:BT=AZ*BZ*2:AZ=AT+A
  C:BZ=BT+BC
15   IF PEEK(764)<255 OR PEEK(632)<>15
  THEN EXEC CHECK_KEY
16   TS=AZ*AZ+BZ*BZ:S=TS:C=C+1
17 LOOP
18
19 POKE 77,0:IF C>CT THEN CL=0:GOSB CON
  TINUE
20 IF MODE=15 THEN EXEC COLOR_15:GOSB C
  ONTINUE
21 A=C MOD 2:IF A>0:CL=1:ELSE :CL=0:EN
  DIF
22 # CONTINUE
23 COLOR CL:PLOT XP,YP
24 GOTO 8
25
26 PROC COLOR_15
27   IF C<10:PP=C:ELSE :PP=C MOD 10:EN
  DIF
28   IF PP=1 OR PP=4 OR PP=7 THEN CL=1
29   IF PP=2 OR PP=5 OR PP=8 THEN CL=2
30   IF PP=3 OR PP=6 OR PP=9 THEN CL=3
31 ENDPROC
32
33 # ZOOM
34 X0=A2:Y0=A3:COLOR 1:KEY=255:POKE 76
  4,255
35 PLOT X0,Y0:H=PEEK(632)
36 IF H<>15 THEN EXEC MOVE_DOT
37 IF X0>A1 THEN X0=X0-1
38 IF X0<0 THEN X0=X0+1
39 IF Y0>A4 THEN Y0=Y0-1
40 IF Y0<0 THEN Y0=Y0+1
41 GOSB ZOOM_NUMBER
42
43 PROC MOVE_DOT
44   PAUSE 2
45   XX=X0:YY=Y0
46   COLOR 0:PLOT XX,YY:COLOR 1
47   IF H=6 OR H=10 OR H=14 THEN Y0=Y0
  -1
48   IF H=5 OR H=13 OR H=9 THEN Y0=Y0+
  1
49   IF H=6 OR H=7 OR H=5 THEN X0=X0+1
50   IF H=9 OR H=10 OR H=11 THEN X0=X0
  -1
51 ENDPROC

```

```

52 -----
53 # ZOOM_NUMBER
54 IF KEY=255 THEN GOSB ZOOM_DONE
55 IF KEY=31 THEN N=1
56 IF KEY=30 THEN N=1.27
57 IF KEY=26 THEN N=1.9
58 IF KEY=24 THEN N=2.8
59 IF KEY=29 THEN N=4
60 IF KEY=27 THEN N=6
61 IF KEY=51 THEN N=7.5
62 IF KEY=53 THEN N=10
63 IF KEY=48 THEN N=15
64 EXEC BELL
65 POKE 764,255
66 -----
67 # ZOOM_SQUARE
68 IF N=0 THEN GOSB ZOOM_DONE
69 P1=X0-A2/N:P2=X0+A2/N:P3=Y0-A3/N:P4
  =Y0+A3/N
70 IF P2>A1 AND P3<0 THEN PLOT P1,0:DR
  AWTO P1,P4:DRAWTO A1,P4:GOSB ZOOM_DONE
71 IF P1<0 AND P3<0 THEN PLOT P2,0:DR
  AWTO P2,P4:DRAWTO 0,P4:GOSB ZOOM_DONE
72 IF P1<0 AND P4>A4 THEN PLOT 0,P3:DR
  AWTO P2,P3:DRAWTO P2,A4:GOSB ZOOM_DONE
73 IF P2>A1 AND P4>A4 THEN PLOT A1,P3:
  DRAWTO P1,P3:DRAWTO P1,A4:GOSB ZOOM_DON
  E
74 IF P1<0 THEN PLOT 0,P3:DRAWTO P2,P3
  :DRAWTO P2,P4:DRAWTO 0,P4:GOSB ZOOM_DON
  E
75 IF P3<0 THEN PLOT P1,0:DRAWTO P1,P4
  :DRAWTO P2,P4:DRAWTO P2,0:GOSB ZOOM_DON
  E
76 IF P4>A4 THEN PLOT P1,A4:DRAWTO P1,
  P3:DRAWTO P2,P3:DRAWTO P2,A4:GOSB ZOOM_
  DONE
77 IF P2>A1 THEN PLOT A1,P3:DRAWTO P1,
  P3:DRAWTO P1,P4:DRAWTO A1,P4:GOSB ZOOM_
  DONE
78 PLOT P1,P3:DRAWTO P2,P3:DRAWTO P2,P
  4:DRAWTO P1,P4:DRAWTO P1,P3
79 -----
80 # ZOOM_DONE
81 KEY=PEEK(764)
82 IF KEY=28 THEN GOSB MENU
83 IF PEEK(53279)=6 THEN EXEC BELL:GOSB
  NEW_NAME
84 IF KEY=10 THEN POKE 764,255:EXEC BE
  LL:EXEC SET_PRINT:EXEC DUMP:EXEC LOAD_
  ML:EXEC BELL
85 IF KEY=62 THEN POKE 764,255:EXEC BE
  LL:EXEC SAVE_PIC:EXEC BELL
86 GOTO 35
87 -----
88 # NEW_NAME
89 TRAP #NEW_NAME:GRAPHICS 0:SETCOLOR
  2,0,2
90 ? :? "Do you want to change the fil
  ename (1=Yes 0=No)":POKE 752,2:INP
  UT ASK
91 IF ASK>1 THEN GOSB NEW_NAME
92 IF ASK=0 THEN GOSB RESOLUTION
93 IF ASK=1
94   CL5 :? :? "Current Filename is ->
  ";AS;"<- "
95   ? :? :? "
96   EXEC DIRECTORY
97   ? :? "Filename (up to 8 character
  s Max., '0' for another d
  irectory)"
98   POKE 752,2:INPUT A1$
99   IF A1$="0" THEN 94
100   A$=A1$:EXEC FIX_NAME
101 ENDIF

```


More Turbo...

```

102 -----
103 # RESOLUTION
104 TRAP #RESOLUTION:GRAPHICS 0:SETCOL
OR 2,0,2
105 ? :? "Input a resolution number fr
om 10-1000"
106 ? "The previous Fractal was plotte
d with resolution ->";CT;"<-"
107 ? :? "What number would you like":
POKE 752,2:INPUT CC
108 IF CC<2 OR CC>1000 THEN GOR RESOLU
TION
109 CT=CC
110 -----
111 # ZOOM_CALC
112 X5=X5+((P1+P2)/2)*XT
113 RRANGE=(P2-P1)*XT
114 X5=X5-RRANGE/2
115 XE=X5+RRANGE
116 XT=(XE-X5)/A1
117 Y5=Y5+((P3+P4)/2)*YT
118 Y5=Y5-RRANGE*0.77/2
119 YE=Y5+RRANGE*0.77
120 YT=(YE-Y5)/A4
121 GRAPHICS MODE+16:EXEC SET_COLORS:G
OR CALC_PIXELS
122 -----
123 # MENU
124 GRAPHICS 0:SETCOLOR 2,0,2:?
125 ? " WELCOME TO FRACTALAND"
126 ? :? :? " Would you like to:":? :?
" (1) View Frac8 "
127 ? :? " (2) View Frac15 ":PRINT :
PRINT " (3) View your own saved PIC"
128 ? :? " (4) Instructions"
129 TRAP #MENU:? :? " Choose (1,2,3 or
4) ":POKE 752,2:INPUT CH
130 -----
131 IF CH<1 OR CH>4 THEN GOR MENU
132 IF CH=1 THEN AS="FRAC8"
133 IF CH=2 THEN AS="FRAC15"
134 IF CH=1 OR CH=2 THEN EXEC FIX_NAME
:EXEC LOAD_PIC:GOR CONTINUE
135 IF CH=3 THEN EXEC DIRECTORY
136 IF CH=4 THEN GOR INFO
137 -----
138 # WHICH_PIC
139 TRAP #MENU:? :? "Which Pic to load
?:? " ('0' for another directory,
RETURN for menu)"
140 POKE 752,2:INPUT AS
141 IF AS<1,1>="0" THEN AS<1,1>=" ":EX
EC DIRECTORY:GOR WHICH_PIC
142 EXEC FIX_NAME:EXEC LOAD_PIC:GOR CO
NTINUE
143 -----
144 PROC DIRECTORY
145 ? :CLOSE #1:OPEN #1,6,0,"D:*.PIC
"
146 FOR J=1 TO 10
147 FOR I=0 TO 1
148 INPUT #1,B$
149 IF LEN(B$)=16 THEN 153
150 ? B$(3,10);" ";
151 NEXT I:
152 NEXT J
153 CLOSE #1:PRINT B$
154 ENDPROC
155 -----
156 PROC FIX_NAME
157 FIS="D:":FIS(3)=AS
158 FIS(LEN(FIS)+1)=".PIC"
159 ENDPROC
160 -----
161 PROC LOAD_PIC
162 EXEC LOAD_DATA
163 TRAP #MENU:CLOSE #1:OPEN #1,4,0,
FIS
164 GRAPHICS MODE+16
165 POKE 559,0:C0=PEEK(88)+PEEK(89)*
256
166 Z=USR(ML,7,C0,7680)
167 CLOSE #1
168 EXEC SET_COLORS
169 POKE 559,PS:IF SV=1 THEN GOR PIC
DONE
170 ENDPROC

```

```

171 -----
172 PROC SAVE_PIC
173 EXEC SAVE_DATA
174 TRAP #MENU:CLOSE #1:OPEN #1,8,0,
FIS
175 C0=PEEK(88)+PEEK(89)*256
176 Z=USR(ML,11,C0,7680)
177 CLOSE #1
178 ENDPROC
179 -----
180 PROC SAVE_DATA
181 FGS=FIS:FGS(LEN(FGS)-3)=".DAT"
182 TRAP #MENU:CLOSE #1:OPEN #1,8,0,
FGS
183 ? #1,X:? #1,XP:? #1,XS:? #1,XE
184 ? #1,XT
185 ? #1,Y:? #1,YP:? #1,YS:? #1,YE
186 ? #1,YT
187 ? #1,AZ:? #1,BZ:? #1,AC:? #1,BC
188 ? #1,C1:? #1,CT:? #1,SV:? #1,MODE
189 ? #1,PEEK(708):? #1,PEEK(709):?
#1,PEEK(710):? #1,PEEK(712):? #1,SL:?
#1,CL
190 CLOSE #1
191 ENDPROC
192 -----
193 PROC LOAD_DATA
194 FGS=FIS:FGS(LEN(FGS)-3)=".DAT"
195 TRAP 202:CLOSE #1:OPEN #1,4,0,FG
S
196 INPUT #1,X:INPUT #1,XP:INPUT #1,
XS:INPUT #1,XE:INPUT #1,XT
197 INPUT #1,Y:INPUT #1,YP:INPUT #1,
YS:INPUT #1,YE:INPUT #1,YT
198 INPUT #1,AZ:INPUT #1,BZ:INPUT #1,
AC:INPUT #1,BC
199 INPUT #1,C:INPUT #1,CT:INPUT #1,
SV:INPUT #1,MODE
200 INPUT #1,C1:INPUT #1,C2:INPUT #1,
C3:INPUT #1,C4:INPUT #1,SL:INPUT #1,C
L
201 CLOSE #1
202 IF MODE=8 THEN A1=319:A2=159:A3=
95:A4=191
203 IF MODE=15 THEN A1=159:A2=79:A3=
95:A4=191
204 ENDPROC
205 -----
206 PROC COLORSWAP
207 IF ST=14 THEN C1=C1+2:POKE 708,C
1:IF C1>240 THEN C1=-2
208 IF ST=7 THEN C2=C2+2:POKE 709,C2
:IF C2>240 THEN C2=-2
209 IF ST=13 THEN C3=C3+2:POKE 710,C
3:IF C3>240 THEN C3=-2
210 IF ST=11 THEN C4=C4+2:POKE 712,C
4:IF C4>240 THEN C4=-2
211 PAUSE 10
212 ENDPROC
213 -----
214 PROC SETUP
215 DIM AS(15),B$(20),A$(15),FIS(15
),FGS(15),AAS(193)
216 SV=0:PS=PEEK(559):POKE 65,0
217 ENDPROC
218 -----
219 PROC LOAD_ML
220 ML=ADR("hhhhRjhUjhTjhYjhXj
VjTjVjUj")
221 ENDPROC
222 -----
223 PROC BELL
224 SOUND 0,210,10,4:PAUSE 15:SOUND
225 ENDPROC
226 -----
227 # PICDONE
228 KEY=PEEK(764)
229 IF KEY=28 THEN GOR MENU
230 IF FLAG=1 THEN POKE 559,PS:FLAG=0
231 ST=PEEK(632):IF ST<>15 THEN EXEC C
OLORSWAP
232 IF KEY=23 THEN EXEC BELL:GOR ZOOM
233 IF KEY=10 THEN POKE 764,255:EXEC B
ELL:EXEC SET_PRINT:EXEC DUMP:EXEC LOAD
_ML:EXEC BELL
234 IF KEY=62 THEN POKE 764,255:EXEC B
ELL:EXEC SAVE_PIC:EXEC BELL
235 POKE 77,0:GOR PICDONE

```


More Turbo...

```

236 -----
237 PROC SET_COLORS
238   POKE 708,C1:POKE 709,C2:POKE 710
,C3:POKE 712,C4
239 ENDPROC
240 -----
241 PROC CHECK_KEY
242   KEY=PEEK(764)
243   ST=PEEK(632)
244   IF ST<>15 THEN EXEC COLORSWAP
245   IF (KEY<>33 AND KEY<255 OR ST<>1
5) AND FLAG=1 THEN POKE 559,P5:FLAG=0
246   IF KEY=28 THEN GOR MENU
247   IF KEY=33 AND FLAG=0 THEN POKE 5
59,0:FLAG=1:POKE 764,255:GOTO 249
248   IF KEY=33 AND FLAG=1 THEN POKE 5
59,P5:FLAG=0:POKE 764,255
249   IF KEY=23 THEN EXEC BELL:GOR ZOO
M
250   IF KEY=10 THEN EXEC BELL:EXEC SE
T_PRINT:EXEC DUMP:EXEC LOAD_ML:EXEC BE
LL
251   IF KEY=62 THEN EXEC BELL:EXEC SA
VE_PIC:EXEC BELL
252   POKE 764,255:ENDPROC
253 -----
254 PROC DUMP
255   TRAP #MENU:CLOSE #5:OPEN #5,8,0,
"P:"
256   ? #5;CHR$(27);CHR$(65);CHR$(8):F
OR XXX=DM TO DM+39
257   AAS=CHR$(0):AAS(192)=AAS:AAS(2
)=AAS
258   W=USR(1536,XXX,ADR(AAS)):LPRIN
T CHR$(27);CHR$(75);CHR$(192);CHR$(0);
AAS:NEXT XXX
259 ENDPROC
260 -----
261 PROC SET_PRINT
262   RESTORE 266:FOR T=1 TO 61:READ Q
:POKE 1545+T,Q
263   NEXT T:DM=PEEK(88)+PEEK(89)*256:
DM=DM+40*191:T=0
264 ENDPROC
265 -----
266 DATA 104,104,141,31,6,104,141,30,6
,104,141,37,6,104,141,36,6,160,193,173
,255,255,136,240,35,141,255,255,238
267 DATA 36,6,240,21,173,30,6,56,233,4
0,141,30,6,144,4,24,76,29,6,206,31,6,7
6,29,6,238,37,6,76,43,6,96
268 -----
269 # INFO
270 POKE 752,2:?"K":? :? :?
271 ? "These intriguing pictures are p
lotted one pixel at a time, and are ba
sed on Fractal formulas presented ";
272 ? "in Scientific American
mag., and the book, 'Fractal Geometry O
f Nature', by Benoit Mandelbrot."
273 ? "You need no knowledge of the fo
rmulas to generate your own, unique Fr
actal designs. This program ";
274 ? "takes care of all the work for
you."
275 ? "Any part of a pic can be Magnif
ied indefinitely, to show more comp
lex, beautiful Fractal forms."
276 ? "You can start zooming with FRAC
8- a 2-color mode offering the highe
st resolution, or with FRAC15- a"
277 ? "4-color, medium res. Fractal."
278 POKE 752,2:GOSUB 347:?"K":? :? :?
279 ? "K":? :? " Along with this progr
am, you need the following fi
les on disk-"
280 ? :?"FRAC8.PIC":?"FRAC8.DAT":?"
FRAC15.PIC":?"FRAC15.DAT"
281 ? :? " The menu presented to you
at the start gives you 4 choices. "
;

```

```

282 ? "The first two let you view the
pictures on disk,FRAC8 and FRAC15. Th
ey were plotted in graphic modes ";
283 ? "8 and 15. The third choice
will give you a disk directory of pict
ures that the ";
284 ? "program saves for you. ";
285 ? "The fourth gives you these
instructions."
286 POKE 752,2:GOSUB 347:?"K":? :? :?
287 ? "Once you pick a picture to load
, it will then be displayed. ANYTIME
a ";
288 ? " picture is on screen, you c
an ";
289 ? "change the colors by moving yo
ur joystick. The color on screen wil
l cycle from dark";
290 ? " to light and ";
291 ? "then jump to the next color.
The cycle runs through 15 colors, wit
h 7 brightnesses each."
292 ? "Each stick position changes the
color of different parts of the pictu
re, so experiment to get the ";
293 ? "feel of it."
294 POKE 752,2:GOSUB 347:?"K":? :? :?
295 ? "To magnify a part of the pictur
e for more detail, press the 'Z' for
zoom key while the pic is ";
296 ? "displayed. A dot will appear at
the center of the picture that y
ou move about with your joystick. ";
297 ? "Place the dot at the center of
the next pic you would like plotted.(i
t may be hard to see in mode 8)."
298 GOSUB 347:?"K":? :? :?
299 ? "Next, push a key from 1-9, with
1 being the same size. ";
300 ? " A different size square will be
drawn depending on which number y
ou select."
301 ? " If you're not satisfied with th
e size of the square or the placement
of it, just move the dot again";
302 ? " with the joystick, and/or, se
lect another number. Selecting '1' wi
ll allow you to shift the ";
303 ? "picture for better positionin
g, without zooming."
304 ? "Once you're satisfied with the po
sition and size of the square, push ENTER
to begin the next picture."
305 GOSUB 347:?"K":? :? :?
306 ? "You'll be asked for a new filen
ame, if you wish to change it."
307 ? "A resolution number from 10-100
0 is also asked for. Low numbers are
good for quick scans of interesting"
308 ? "areas, while high numbers resul
t in longer, more detailed plots. I
suggest around 250 for a good ";
309 ? "compromise between speed a
nd resolution."
310 GOSUB 347:?"K":? :? :?
311 ? " To save a picture in progress
, just push 'S', and the program will
save it to drive #1 with the ";
312 ? "filename you gave it earlier. Th
ere must be 66 sectors free space on
the disk before saving."
313 ? " You can then recall it later b
y using choice #3 at the beginning Men
u. It will";
314 ? " automatically continue plottin
g where it left off. This is convenia
nt if you don't want to tie up your";
315 ? " computer for the long tim
e required to complete a full picture.
Remember, you can magnify";
316 ? " a part of the ";
317 ? "picture even if it's not finishe
d. Just push 'Z' to start the magnifica
tion process described before."
318 GOSUB 347:?"K":? :? :?

```


More Turbo...

```

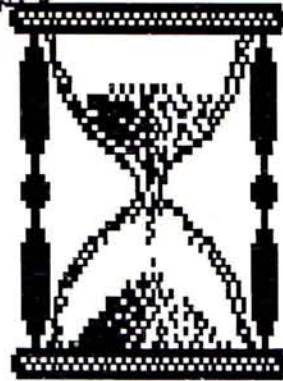
319 ? " After you push 'S'ave, START,
'Z'oom or 'P'rint, a tone will sound.
You may have to wait a second ";
320 ? "until the ";
321 ? "      program finishes the curr
ent      calculation before it tak
es action. You need only push the "
322 ? "appropriate key once."
323 ? "By the way, pushing 'P' will se
nd the displayed picture to an Epson/G
emini printer."
324 GOSUB 347:?"K":? :? :?
325 ? " You can return to the main men
u by      hitting the ESC key at any time
. ";
326 ? " Also, when asked for names for
your      pictures, don't add any ex
tenders, the program takes ";
327 ? "care of that."
328 ? "The pictures are saved in a sta
ndard 62-sector format that you can u
se with other popular paint software."
329 ? "The space bar toggles the scree
n      on/off. Plotting speed is incre
ased 30% by having the screen off."
330 ? :? :? "      Enjoy the program
!!!!"
331 GOSUB 347:?"K":? :? :?
332 ? "      Programmed by:"
333 ? :? :? "      Brian N. Hershey":?
"      103 Granger Rd., #3"
334 ? "      Leola, PA 17540":? :?
"      (717)656-0134"
335 ? :? :? "Compuserve -> 72337,2013
DELPHI      -> 25BNH"
336 ? :? :? "Feel free to modify, dist
ribute, write, call or leave E-Mail. I
f you have an interest in Fractals,";
337 ? "I'd like to hear from you!"
338 GOSUB 347:?"K":? :?
339 ? "      -REMEMBER-":?
340 ? "      'S'      -> Saves picture to d
isk"
341 ? :? :? "      'Z'      -> Places dot on s
creen
g"
342 ? :? :? "      START      -> Starts next pic
ture
after zooming"
343 ? :? :? "      'P'      -> Begins screen-d
ump to
Epson/Gemini pr
inter"
344 ? :? :? "      ESC      -> Returns to main
menu"
345 ? :? :? "Space bar -> Turns screen of
f/on for
30% speed incre
ase"
346 GOSUB 347:GOSUB MENU
347 POSITION 2,22:?"PRESS ANY KEY TO
CONTINUE...."
348 IF PEEK(753)=0 THEN 348
349 PAUSE 25:POKE 764,255:RETURN
350 -----

```



Minutes

From the June meeting;
6-2-87



Meeting called to order at 8:00 PM by President Barton. Roll Call of Officers: Present, Barton, Hansen and Moran. Absent, Sawley.

The President explained in detail the problem that we had with Atari and how it was worked out to the satisfaction of all parties. Now that these problems are behind us, the club must come together and prepare plans to make the "World of Atari" show a success. There are flyers and posters for all, they should be given the widest possible distribution. Volunteers are needed for Thursday June 18th through Saturday the 20th. All interested members should call President Barton at 352-8118.

Next order of business, Nominations for Election of Officers. Being no nominations the following motion was duly made and seconded.

MOTION: That the nominated candidates be declared elected by acclamation. Motion carried unanimously.

The newly elected Officers:

President:	Bob Barton
Vice President:	Mike Sawley
Treasurer:	Lois Hansen
Secretary:	Jim Moran

Software Chairmen Cliff and Mark demonstrated this month's 8 Bit Floppy. Some of the programs this month are; a crossword generator, the latest ARC utilities, nose and opart both great demo's and a multiple file copy program.

Treasurer Lois Hansen explained the type of things she was planning for the educational booth at the World of Atari show. She has been able to obtain a good supply of both 8 and 16 bit software and all she needs now to complete her plans are three 8 bit monitors. Lois will need volunteers for her booth also, those wishing to help please call her at 482-2222.

The raffle for tonight was for a modem, joysticks and several tee shirts. Next, the auction for the ASTRA 2001 double disk drive was held. As advertised the opening bid was \$125, the bidding was fast and furious and ended up at \$210 for the lucky bidder and the club treasury. Again many thanks to the donor.

Program chairman Dick Scott introduced Sandi Austin, Atari's user group coordinator and this evening's guest speaker. Sandi explained a bit about her job which at this time seems to be an endless round of shows. There are and have been shows every couple of weeks since last year. The upcoming World of Atari show in Santa Clara June 19th and 20th will be one of the best advertised shows to date with radio and newspaper spots continuously for the two weeks prior to the show. The CES show in Chicago this week saw the introduction of the new 8 bit "Ultimate Game Machine" as well as the new double density, double sided 5 1/4 inch 8 bit disk drive that should sell for the same price as the 1050 drive.

During a short Question and answer period Sandi informed the club that "Word Perfect" was soon to be released for the ST along with a big ad campaign. It was also brought out that the new 520 FM was already being sold in some eastern states. This is a 520 ST in a 1040 style case with built in single sided drive which will soon be the only 520 ST.

John Russell brought his just finished 4 Megabyte ST to demonstrate. This upgrade is available, if interested contact John. He also reported the new 520 FM has been improved and Atari has corrected some of the problems the 520 had developed.

Being no further business the meeting was adjourned at 10 PM.

Respectfully Submitted, Jim Moran - Secretary

JULY 1987

SLCC Calendar of Events

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
			1	2	3	4
5	6	7 MAIN MEETING 8PM San Leandro Public Library	8 EXECUTIVE BOARD MEETING	9	10	11
12	13 ST SIG 8PM San Leandro Public Library	14	15	16 BASIC SIG 8PM NOTE: The Basic SIG will not meet in JULY.	17	18
19	20	21 BEGINNER'S SIG 7:30PM TELE-COMMUNI-C ATION SIG 8 PM	22 EDUCATION SIG 7 PM	23	24 JOURNAL DEADLINE	25
26	27 ST SOFTWARE SIG 8 PM	28 PASCAL SIG 7 PM BUSINESS SIG 8 PM	29	30	31	

Now That It's Plugged In....

The SLCC Beginners SIG is for those who own Atari 8-bit computers and consider themselves a novice or beginner. We discuss Basic, DOS, operations, system set-up, keyboard functions, and other introductory material. SIG meetings are held on the third Tuesday of each month at 7:30 PM. Call Richard Stiehl at 352-3444 or 562-7485 for information and directions.
See you there..... RS

SIG (special interest group) leaders and their phone numbers are located on the Table of contents page at the front of the Journal. Please call them for more details or directions.

JULY MEETING

The activities planned at the July meeting are: a continuation of the SIG Reports, a demonstration of the PIO controller in this Journal (so, if you would like to know if your favorite software would benefit from this goodie, then bring it with you to the meeting), highlights of the Atari Expo, and an auction, where an 800XL and a Magic-Sac will be up for bid.

The members of the SLCC would like to thank Sandi Austin for attending our June meeting as a representative of Atari. As in the past, she has proven to be an effective liason between the Company and the User Groups, a task that was particularly difficult given the recent conflicts in the Club's and Atari's goals.

-The music to soothe the Savage Beast-

SLCC

JOURNAL



P.O. BOX 1506, SAN LEANDRO, CA 94577-0374

Next Meeting:

TO

July 7, 1987 • 8 pm

San Leandro Community Library

300 Estudillo Ave

FIRST CLASS MAIL